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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,646	GHARACHORLOO ET AL.	
	Examiner	Art Unit	
	Miranda Le	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/28/07 has been entered.

2. This communication is responsive to Amendment, filed 02/28/07.

Claims 1-31 are pending in this application. Claims 1, 2, 12, 13 are independent claims. In the Amendment, claims 1-13, 16-23 have been amended, claims 29-31 have been added. This action is made non-Final.

3. The rejection of claims 1-3, 5-8, 10, 12-15, 17-20, 22, 24-28 by 35 U.S.C. §101 has been withdrawn in view of the amendment.

4. The rejection of claims 1-3, 5-8, 10, 12-15, 17-20, 22, 24-28 by 35 U.S.C. §112 second paragraph has been withdrawn in view of the amendment.

Claim Objections

5. Claim 4 is objected to because of the following informalities: Claim 4, line 4, "the query result stored in the ***case"*** should be changed to "the query result stored in the ***cache***". Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-7, 11-19, 23-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al. (US Patent No. 6,826,557), in view of Beeferman et al. (US Patent No. 6,701,309).

As per claim 1, Carter teaches a method for searching a document database *(i.e. The query engine 16 is additionally operative to communicate with one or more informational resources. As discussed above, an informational resource can take a variety of forms, including relational databases, hierarchal databases, directories, hypertext markup language "HTML" documents, web pages, files, textual documents, blobs, sets of formatted transactions, and the like, col. 4, lines 48-64)*, comprising:

receiving a search query *(i.e. The query engine 16, col. 4, lines 48-64)*;

returning a search result corresponding to the search query, including:

determining whether a query result corresponding to the search query is stored in a cache *(i.e. A cache is then searched for the query and results data responsive to the query, col. 2, lines 33-44)*;

when the determining returns a negative result *(i.e. whether the query is a new query which needs to be recorded or registered within the cache or data store, col. 9, lines 28-34)* generating a first search result in accordance with a first set of predetermined search criteria *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20)* and returning as the search result at least a subset of the first search result *(i.e. If a received query is an entirely new query step, then the results data responsive to the query request is retrieved from one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20);*

when the determining returns a positive result *(i.e. A cache is then searched for the query and results data responsive to the query, if the query and results data are present in the cache, they are returned. Further, if partial results data exists in the cache then the missing results data are obtained and associated with the query in the cache and a complete response is returned including an assembled results data responsive to the original query, col. 2, lines 33-44),* +

when predefined conditions are satisfied *(i.e. whether the query is a subset of another existing query within the cache or data store (step 78), col. 9, lines 28-34),* generating an improved search result *(i.e. create superset, Fig. 5)* in accordance with a second set of predetermined searching criteria including performing an additional search *(i.e. If some of the results data necessary to satisfy the superset query is not present within the cache or data store,*

it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7) corresponding to the search query, and returning as the search result at least a subset of the improved search result *(i.e. If a decomposed query is determined to be a subset of existing queries or query components in step 78, then a single superset query may be constructed such that a single query within the cache or data store includes the subset queries or query components (step 81). If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7);*

when the predefined conditions are not satisfied, returning as the search result at least a subset of the query stored in the cache *(i.e. if a duplicative query is detected within the cache or data store, then the results data which is responsive to that query is immediately located and returned or otherwise made available indirectly (e.g., hypertext links, websites, faxes, and the like) to the sender in step 74, col. 9, lines 59-63).*

Carter does not specifically teach:

accessing a reuse count of the search query;

including the reuse count being larger then a predetermined threshold count.

Beeferman teaches:

accessing a reuse count of the search query *(i.e. Query pair database 160 contains counts of occurrences of query pairs that were found during previous executions of the method shown in FIG. 1, col. 8, lines 26-43);*

including the reuse count being larger then a predetermined threshold count *(i.e. if the predetermined number is three, the method would conclude that the queries "patent" and "trademark", which comprise a query pair that occurred twenty times, have a likelihood of being submitted by a single searcher in a single search session. Likewise, the method would conclude that the queries "leather" and "patent leather", which comprise a query pair that occurred five times, also have a likelihood of being submitted by a single searcher in a single search session, col. 8, lines 17-25).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carter and Beeferman at the time the invention was made to modify the system of Carter to include the limitations as taught by Beeferman.

One of ordinary skill in the art would be motivated to make this combination in order to determine whether the first and second queries have the likelihood of being submitted by the class of searcher in view of Beeferman *(col. 10, lines 12-22)*, as doing so would give the added benefit of taking advantage of a broader spectrum of queries collected over a longer interval of time than that which is represented in access log alone in order to utilize related queries to refine a presentation of an alternative query to a first query based on a searcher's tendency to utilize information that is presented to the searcher after executing a search based on the alternate query, as taught by Beeferman *(col. 10, lines 12-22).*

As per claim 2, Carter teaches a method for searching a document database *(i.e. The query engine 16 is additionally operative to communicate with one or more informational resources. As discussed above, an informational resource can take a variety of forms, including relational databases, hierarchal databases, directories, hypertext markup language "HTML" documents, web pages, files, textual documents, blobs, sets of formatted transactions, and the like, col. 4, lines 48-64)*, comprising:

receiving a search query *(i.e. The query engine 16, col. 4, lines 48-64);*

returning a search result corresponding to the search query, including:

determining whether a query result corresponding to the search query is stored in a cache *(i.e. A cache is then searched for the query and results data responsive to the query, col. 2, lines 33-44);*

when the determining returns a negative result *(i.e. whether the query is a new query which needs to be recorded or registered within the cache or data store, col. 9, lines 28-34)* generating a first search result in accordance with a first set of predetermined search criteria *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20)* and returning as the search result at least a subset of the first search result *(i.e. If a received query is an entirely new query step, then the results data responsive to the query request is retrieved from one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20);*

when the determining returns a positive result *(i.e. A cache is then searched for the query and results data responsive to the query, if the query and results data are present in the cache, they are returned. Further, if partial results data exists in the cache then the missing results data are obtained and associated with the query in the.cache and a complete response is returned including an assembled results data responsive to the original query, col. 2, lines 33-44)*, and determining a quality of the cached query result;

when a quality indication does not meet predefined criteria *(i.e. if a duplicative query is detected within the cache or data store, col. 9, lines 59-63)*, returning as the search result at least a subset of the query result stored in the cache *(i.e. if a duplicative query is detected within the cache or data store, then the results data which is responsive to that query is immediately located and returned or otherwise made available indirectly (e.g., hypertext links, websites, faxes, and the like) to the sender in step 74, col. 9, lines 59-63)*; and

when the quality indication meets the predefined *(i.e. If a decomposed query is determined to be a subset of existing queries or query components in step 78, then a single superset query may be constructed such that a single query within the cache or data store includes the subset queries or query components (step 81), col. 9, line 64 to col. 10, line 7)*, generating an improved search result in accordance with a second set of predetermined searching criteria using additional search resources, returning as the search result at least a subset of the improved search result *(i.e. If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized,*

and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7).

Carter does not specifically teach:

accessing a reuse count of the search query;

the reuse count is less than or equal to a predetermined threshold count;

the reuse count is larger than the predetermined threshold count.

Beeferman teaches:

accessing a reuse count of the search query *(i.e. Query pair database 160 contains counts of occurrences of query pairs that were found during previous executions of the method shown in FIG. 1, col. 8, lines 26-43);*

the reuse count is less than or equal to a predetermined threshold count *(i.e. determining whether the number of occurrences of a particular query pair is greater than a predetermined number, col. 8, lines 12-16);*

the reuse count is larger than the predetermined threshold count *(i.e. if the predetermined number is three, the method would conclude that the queries "patent" and "trademark", which comprise a query pair that occurred twenty times, have a likelihood of being submitted by a single searcher in a single search session. Likewise, the method would conclude that the queries "leather" and "patent leather", which comprise a query pair that occurred five times, also have a likelihood of being submitted by a single searcher in a single search session, col. 8, lines 17-25).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carter and Beeferman at the time the invention was made to modify the system of Carter to include the limitations as taught by Beeferman.

One of ordinary skill in the art would be motivated to make this combination in order to determine whether the first and second queries have the likelihood of being submitted by the class of searcher in view of Beeferman *(col. 10, lines 12-22)*, as doing so would give the added benefit of taking advantage of a broader spectrum of queries collected over a longer interval of time than that which is represented in access log alone in order to utilize related queries to refine a presentation of an alternative query to a first query based on a searcher's tendency to utilize information that is presented to the searcher after executing a search based on the alternate query, as taught by Beeferman *(col. 10, lines 12-22)*.

As per claim 12, Carter teaches a system for searching a document database *(i.e. The query engine 16 is additionally operative to communicate with one or more informational resources. As discussed above, an informational resource can take a variety of forms, including relational databases, hierarchal databases, directories, hypertext markup language "HTML" documents, web pages, files, textual documents, blobs, sets of formatted transactions, and the like, col. 4, lines 48-64)*, comprising:

a cache for storing search results corresponding to previously processed search queries *(see Fig. 1)*;

a search controller including one or more computer programs containing instruction for receiving a search query *(i.e. see Fig. 1, The query engine 16, col. 4, lines 48-64)*;

determining whether a query result corresponding to the search query is stored in a cache *(i.e. A cache is then searched for the query and results data responsive to the query, col. 2, lines 33-44)*;

returning a search result corresponding to the search query, including:

when the determining returns a negative result *(i.e. whether the query is a new query which needs to be recorded or registered within the cache or data store, col. 9, lines 28-34)* generating a first search result in accordance with a first set of predetermined search criteria *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20)* and returning as the search result at least a subset of the first search result *(i.e. If a received query is an entirely new query step, then the results data responsive to the query request is retrieved from one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20);*

when the determining returns a positive result *(i.e. A cache is then searched for the query and results data responsive to the query, if the query and results data are present in the cache, they are returned. Further, if partial results data exists in the cache then the missing results data are obtained and associated with the query in the cache and a complete response is returned including an assembled results data responsive to the original query, col. 2, lines 33-44)*,

when predefined conditions are satisfied *(i.e. whether the query is a subset of another existing query within the cache or data store (step 78), col. 9, lines 28-34),* generating an improved search result *(i.e. create superset, Fig. 5)* in accordance with a second set of predetermined searching criteria including performing an additional search *(i.e. If some of the*

results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7) corresponding to the search query, and returning as the search result at least a subset of the improved search result *(i.e. If a decomposed query is determined to be a subset of existing queries or query components in step 78, then a single superset query may be constructed such that a single query within the cache or data store includes the subset queries or query components (step 81). If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7);*

when the predefined conditions are not satisfied, returning as the search result at least a subset of the query stored in the cache *(i.e. if a duplicative query is detected within the cache or data store, then the results data which is responsive to that query is immediately located and returned or otherwise made available indirectly (e.g., hypertext links, websites, faxes, and the like) to the sender in step 74, col. 9, lines 59-63).*

Carter does not specifically teach:

accessing a reuse count of the search query;

including the reuse count being larger then a predetermined threshold count.

Beeferman teaches:

accessing a reuse count of the search query *(i.e. Query pair database 160 contains counts of occurrences of query pairs that were found during previous executions of the method shown in FIG. 1, col. 8, lines 26-43);*

including the reuse count being larger then a predetermined threshold count *(i.e. if the predetermined number is three, the method would conclude that the queries "patent" and "trademark", which comprise a query pair that occurred twenty times, have a likelihood of being submitted by a single searcher in a single search session. Likewise, the method would conclude that the queries "leather" and "patent leather", which comprise a query pair that occurred five times, also have a likelihood of being submitted by a single searcher in a single search session, col. 8, lines 17-25).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carter and Beeferman at the time the invention was made to modify the system of Carter to include the limitations as taught by Beeferman.

One of ordinary skill in the art would be motivated to make this combination in order to determine whether the first and second queries have the likelihood of being submitted by the class of searcher in view of Beeferman *(col. 10, lines 12-22)*, as doing so would give the added benefit of the method takes advantage of a broader spectrum of queries collected over a longer interval of time than that which is represented in access log 155 alone as taught by Beeferman *(col. 10, lines 12-22).*

As per claim 13, Carter teaches a system for searching a document database *(i.e. The query engine 16 is additionally operative to communicate with one or more informational*

resources. As discussed above, an informational resource can take a variety of forms, including relational databases, hierarchal databases, directories, hypertext markup language "HTML" documents, web pages, files, textual documents, blobs, sets of formatted transactions, and the like, col. 4, lines 48-64), comprising:

a cache for storing search results corresponding to previously processed search queries *(see Fig. 1)*;

a search controller including one or more computer programs containing instruction for receiving a search query *(i.e. see Fig. 1, The query engine 16, col. 4, lines 48-64)*;

determining whether a query result corresponding to the search query is stored in a cache *(i.e. A cache is then searched for the query and results data responsive to the query, col. 2, lines 33-44);*

returning a search result corresponding to the search query, including:

when the determining returns a negative result *(i.e. whether the query is a new query which needs to be recorded or registered within the cache or data store, col. 9, lines 28-34)* generating a first search result in accordance with a first set of predetermined search criteria *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20)* and returning as the search result at least a subset of the first search result *(i.e. If a received query is an entirely new query step, then the results data responsive to the query request is retrieved from one or more external or local data stores, parsed, normalized, properly associated with the new query and registered*

within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20);

when the determining returns a positive result *(i.e. A cache is then searched for the query and results data responsive to the query, if the query and results data are present in the cache, they are returned. Further, if partial results data exists in the cache then the missing results data are obtained and associated with the query in the cache and a complete response is returned including an assembled results data responsive to the original query, col. 2, lines 33-44)*, and determining a quality of the cached query result;

when a quality indication does not meet predefined criteria *(i.e. if a duplicative query is detected within the cache or data store, col. 9, lines 59-63)*, returning as the search result at least a subset of the query result stored in the cache *(i.e. if a duplicative query is detected within the cache or data store, then the results data which is responsive to that query is immediately located and returned or otherwise made available indirectly (e.g., hypertext links, websites, faxes, and the like) to the sender in step 74, col. 9, lines 59-63)*; and

when the quality indication meets the predefined *(i.e. If a decomposed query is determined to be a subset of existing queries or query components in step 78, then a single superset query may be constructed such that a single query within the cache or data store includes the subset queries or query components (step 81), col. 9, line 64 to col. 10, line 7)*, generating an improved search result in accordance with a second set of predetermined searching criteria using additional search resources, returning as the search result at least a subset of the improved search result *(i.e. If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and*

retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7).

Carter does not fairly teach:

accessing a reuse count of the search query;

the reuse count is less than or equal to a predetermined threshold count;

the reuse count is larger than the predetermined threshold count.

Beeferman teaches:

accessing a reuse count of the search query *(i.e. Query pair database 160 contains counts of occurrences of query pairs that were found during previous executions of the method shown in FIG. 1, col. 8, lines 26-43);*

the reuse count is less than or equal to a predetermined threshold count *(i.e. determining whether the number of occurrences of a particular query pair is greater than a predetermined number, col. 8, lines 12-16);*

the reuse count is larger than the predetermined threshold count *(i.e. if the predetermined number is three, the method would conclude that the queries "patent" and "trademark", which comprise a query pair that occurred twenty times, have a likelihood of being submitted by a single searcher in a single search session. Likewise, the method would conclude that the queries "leather" and "patent leather", which comprise a query pair that occurred five times, also have a likelihood of being submitted by a single searcher in a single search session, col. 8, lines 17-25).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carter and Beeferman at the time the invention was made to modify the system of Carter to include the limitations as taught by Beeferman.

One of ordinary skill in the art would be motivated to make this combination in order to determine whether the first and second queries have the likelihood of being submitted by the class of searcher in view of Beeferman *(col. 10, lines 12-22)*, as doing so would give the added benefit of taking advantage of a broader spectrum of queries collected over a longer interval of time than that which is represented in access log alone in order to utilize related queries to refine a presentation of an alternative query to a first query based on a searcher's tendency to utilize information that is presented to the searcher after executing a search based on the alternate query, as taught by Beeferman *(col. 10, lines 12-22).*

As to claims 3, 15, Carter teaches updating *(i.e. a superset query may be updated as needed, col. 10, lines 8-13)* the cache with the improved search result *(i.e. the query registration set of executable instructions may include a Query Engine 96 which receives normalized queries and Query Engine Updates 95, the updates include responsive query data which satisfies a query, col. 10, lines 31-42).*

Beeferman teaches updating the reuse count of the search query *(i.e. This total is then merged into query pair database 160, col. 8, lines 26-43).*

As to claims 4, 16, Carter teaches when the quality indication does not meet the predefined criteria and indicates that the query result stored in the cache is the improved search

result corresponding to the search query, retrieving the improved search result from the cache *(i.e. If a decomposed query is determined to be a subset of existing queries or query components in step 78, then a single superset query may be constructed such that a single query within the cache or data store includes the subset queries or query components (step 81), col. 9, line 64 to col. 10, line 7); and*

returning as the search result at least a subset of the improved search result *(i.e. If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7).*

Beeferman teaches the reuse count is larger than the predetermined threshold count *(i.e. if the predetermined number is three, the method would conclude that the queries "patent" and "trademark", which comprise a query pair that occurred twenty times, have a likelihood of being submitted by a single searcher in a single search session. Likewise, the method would conclude that the queries "leather" and "patent leather", which comprise a query pair that occurred five times, also have a likelihood of being submitted by a single searcher in a single search session, col. 8, lines 17-25).*

As to claims 5, 17, Carter teaches when the quality indication has a first value, the query result stored in the cache is generated by searching only the document database *(i.e. if a duplicative query is detected within the cache or data store, then the results data which is*

responsive to that query is immediately located and returned or otherwise made available indirectly (e.g., hypertext links, websites, faxes, and the like) to the sender in step 74, col. 9, lines 59-63); and

wherein the second set of search criteria comprises searching both the document database and an additional database *(i.e. If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7).*

As to claims 6, 18, Carter teaches when the quality indication has a first value, the query result stored in the cache is generated by searching the document database using a standard search depth *(i.e. if a duplicative query is detected within the cache or data store, then the results data which is responsive to that query is immediately located and returned or otherwise made available indirectly (e.g., hypertext links, websites, faxes, and the like) to the sender in step 74, col. 9, lines 59-63); and*

the second set of predetermined search criteria comprises searching the document database with a larger search depth than the standard search depth *(i.e. If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7).*

As to claims 7, 19, Carter teaches wherein the first set of search criteria comprises searching the document dataset using initial search criteria *(i.e. if a duplicative query is detected within the cache or data store, then the results data which is responsive to that query is immediately located and returned or otherwise made available indirectly (e.g., hypertext links, websites, faxes, and the like) to the sender in step 74, col. 9, lines 59-63); and*

wherein the second set of predetermined search criteria comprises searching the document database using modified search criteria distinct from the initial search criteria *(i.e. If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7).*

As to claims 11, 23, Carter teaches the method of claim 2 further comprising:

retrieving the standard search result from the cache *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20)*; and

returning at least a subset the standard search result as the first search result *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20).*

Beeferman teaches the reuse count is less than or equal to the predetermined threshold count *(i.e. determining whether the number of occurrences of a particular query pair is greater than a predetermined number, col. 8, lines 12-16).*

As per claim 14, Carter teaches the system of claim 13, wherein the search results in the cache comprise:

identifications of documents *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64);*

contents of portions of documents corresponding to at least a subset of the identifications of documents *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64); and*

parameters of documents corresponding to the identifications of documents *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64).*

As per claim 24, Carter teaches the system of claim 13, including:

one or more interface modules for receiving a search query *(i.e. The query engine 16, col. 4, lines 48-64);*

one or more storage modules for storing document identifications and the corresponding documents to be searched *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64);*

wherein the search controller is configured to generate the improved search result by searching at least a subset of the stored document identifications *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64).*

As to claims 25, 26, 27, 28, Carter teaches updating *(i.e. a superset query may be updated as needed, col. 10, lines 8-13)* the query result in the cache with the improved search result *(i.e. the query registration set of executable instructions may include a Query Engine 96 which receives normalized queries and Query Engine Updates 95, the updates include responsive query data which satisfies a query, col. 10, lines 31-42).*

As per claim 29, Carter teaches the method of claim 2, wherein generating the improved search result includes searching both the document database *(i.e. The data set name 22 can be*

textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64) and an additional database *(i.e. an informational resource can take a variety of forms, including relational databases, hierarchal databases, directories, hypertext markup language "HTML" documents, web pages, files, textual documents, blobs, sets of formatted transactions, and the like, col. 4, lines 48-64; one or more external or local data stores, col. 9, line 64 to col. 10, line 7).*

As per claim 30, Carter teaches the method of claim 2, wherein generating the improved search result includes searching the document database to a larger search depth used in generating the first search result *(i.e. If some of the results data necessary to satisfy the superset query is not present within the cache or data store, it may be obtained through standard search and retrieval techniques from one or more external or local data stores, then parsed, normalized, and properly associated with the newly formed superset query and query components within the cache or data store, col. 9, line 64 to col. 10, line 7).*

As per claim 31, Carter teaches the method of claim 2, wherein generating the improved search result includes searching using modified search criteria distinct from the initial search criteria *(i.e. a superset query may be updated as needed, col. 10, lines 8-13).*

8. Claims 8, 10, 20, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al. (US Patent No. 6,826,557), in view of Beeferman et al. (US Patent No. 6,701,309), and further in view of Getchius et al. (US Patent No. 6,493,721).

As to claims 8, 20, Carter teaches generating an improved search result comprises:

submitting the search query to one or more document identification and document servers in accordance with the second set of predetermined search criteria *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64);*

receiving search results from the one or more document identification *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64)* and document servers *(i.e. an informational resource can take a variety of forms, including relational databases, hierarchal databases, directories, hypertext markup language "HTML" documents, web pages, files, textual documents, blobs, sets of formatted transactions, and the like, col. 4, lines 48-64; one or more external or local data stores, , col. 9, line 64 to col. 10, line 7); and*

Carter and Beeferman do not fairly teach:

creating a search result list from the received search results.

Getchius teaches creating a search result list from the received search results *(Figs. 12, 14).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carter, Beeferman and Getchius at the time the invention was made to modify the system of Carter and Beeferman to include the limitations as taught by Getchius.

One of ordinary skill in the art would be motivated to make this combination in order to display in response to a performing a user query in view of Getchius *(col. 10, lines 12-22)*, as doing so would give the added benefit of including displayed summarized business listing information in accordance with the previous search criteria as taught by Getchius *(col. 10, lines 12-22).*

As to claims 10, 22, Carter teaches generating a standard search result comprises:

submitting the search query to one or more document identification *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64)* and document servers in accordance with the first set of predetermined searching criteria *(i.e. an informational resource can take a variety of forms, including relational databases, hierarchal databases, directories, hypertext markup language "HTML" documents, web pages, files, textual documents, blobs, sets of formatted transactions, and the like, col. 4, lines 48-64; one or more external or local data stores, , col. 9, line 64 to col. 10, line 7);*

receiving search results from the one or more document identification *(i.e. The data set name 22 can be textual, numeric, an address or pointer, or any other appropriate means for identifying the corresponding data set 24. If the data set name 22 for a given data set 24 cannot be determined from the informational resource 20, the query engine 16 assigns an appropriate data set name 22, col. 4, lines 48-64)* and document servers *(i.e. an informational resource can take a variety of forms, including relational databases, hierarchal databases, directories, hypertext markup language "HTML" documents, web pages, files, textual documents, blobs, sets of formatted transactions, and the like, col. 4, lines 48-64; one or more external or local data stores, , col. 9, line 64 to col. 10, line 7).*

Carter and Beeferman do not expressly teach:

creating a search result list from the received search results.

Getchius teaches creating a search result list from the received search results *(Figs. 12, 14).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carter, Beeferman and Getchius at the time the invention was made to modify the system of Carter and Beeferman to include the limitations as taught by Getchius.

One of ordinary skill in the art would be motivated to make this combination in order to display in response to a performing a user query in view of Getchius *(col. 10, lines 12-22)*, as doing so would give the added benefit of including displayed summarized business listing information in accordance with the previous search criteria as taught by Getchius *(col. 10, lines 12-22).*

9. Claims 9, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al. (US Patent No. 6,826,557), in view of Beeferman et al. (US Patent No. 6,701,309), and further in view of Schultz (US Patent No. 6,208,988).

As to claims 9, 21, Carter teaches:

when the cache is determined not to have stored therein the query result corresponding to the search query *(i.e. Engine 96 and the managing set of executable instructions do not automatically update responsive query data associated with a registered query unless requested to do so by the sender. In this way a sender, may force the updates by submitting a IFMODSINCE 97 variable or expression for the sender's query which evaluates to true 100, col. 11, lines 1-12):*

generating a standard search result in accordance with the first set of predetermined search criteria *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20); and*

storing the standard search result in the cache *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20);*

returning at least a subset of the standard search result *(i.e. one or more external or local data stores, parsed, normalized, properly associated with the new query and registered*

within the cache or data store in step 79 with the results data returned to the sender, directly or indirectly, in step 82, col. 10, lines 14-20).

Carter and Beeferman do not specifically teach:

setting the reuse count of the search query to an initial value.

Schultz teaches setting a count to an initial value *(i.e. setting the reuse count of the search query to an initial value, col. 9, lines 20-45).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carter, Beeferman and Schultz at the time the invention was made to modify the system of Carter and Beeferman to include the limitations as taught by Schultz.

One of ordinary skill in the art would be motivated to make this combination in order to count the selected document in view of Schultz *(col. 9, lines 20-45)*, as doing so would give the added benefit of providing the document record that has a metadata field with the highest count corresponding to the given person will appear first on the ranked list corresponding to the given person and the document record that has a metadata field with the lowest count corresponding to the given person will appear last on the ranked list as taught by Schultz *(col. 9, line 66 to col. 10, line 34).*

Response to Arguments

10. Applicant's arguments regarding Cherkasova does not disclose generating an improved search result or accessing a reuse count of the search query; accessing a reuse count of the search query or generating an improved search result, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Miranda Le
April 27, 2007